Environment – Quarterly Report – 3th Quarter 2010

Groundwater and surface water monitoring system

Monitoring system of underground water is centred on plant operation impact on underground water. The surface water quality is monitored in Kotrcina stream at two stream profiles.

Index	Jedn	SM1	SM2	SM3	SM4	SM5	PM1	PM2	PM4	PM7	PM8	PM9	PM10	PM11	PV1	PV2
Level	m	5.66	5.61	5.27	5.34	4.95	4.37	4.27	7.22	5.72	6.90	6.59	5.91	5.19		
Temperature	°C	12.80	12.90	13.70	11.80	12.30	14.80	13.70	12.10	13.50	12.60	15.60	13.10	14.20	9.90	13.10
pH	–-	7.29	7.45	7.36	7.31	7.17	7.34	7.35	7.17	7.38	7.36	7.55	7.32	7.36	8.46	8.39
Conductivity	mS/m	70.10	67.00	74.00	73.30	72.10	68.00	67.60	66.70	59.40	64.20	58.90	72.40	71.60	52.8.	49.20
COD-Mn	mg/l	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.16	0.13	0.16	0.06	<0.05	0.13	0.16	2.00	1.28
Nitrates	mg/l	10.50	9.90	17.20	18.40	21.80	9.19	15.70	23.60	8.40	8.60	13.10	16.1	17.90	0.4	0.32
NEL-IR *	mg/l	0.11	0.03	0.02	0.02	0.03	0.03	0.04	0.05	0.02	0.18	0.04	0.05	0.04	0.05	0.05
BTX	mg/l	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Etylebenzene	mg/l	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Hydrocarbon index	mg/l	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.11	<0.10	<0.10	<0.10	<0.10	<0.10
Benzene	ug/l	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Toluene	ug/l	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Dimethylbenzenes	ug/l	<0.05	0.20	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<005	<0.05

TOC	mg/l	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
Sulphurs	mg/l	20.40	24.70	27.30	27.10	28.00	24.30	26.20	28.20	20.60	24.50	23.20	26.10	26.70	
Ammoniacal salt	mg/l	0.02	<0.02	0.02	0.03	0.02	0.03	0.02	<0.02	0.02	<0.02	0.02	<0.02	0.02	
Nitrite	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Total chrome	mg/l	0.002	0.03	<0.001	<0.001	<0.001	0.002	0.001	<0.001	0.001	0.001	0.001	<0.001	0.001	
Cadmium	mg/l	<0.0003	0.001	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	
Manganese	mg/l	0.002	<0.0003	0.008	0.002	0.021	0.003	0.002	0.009	0.001	0.002	0.003	0.003	0.002	
Copper	mg/l	0.015	0.002	<0.001	<0.001	0.004	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	0.002	
Nickel	mg/l	0.003	0.002	0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	0.001	0.001	
Lead	mg/l	0.003	<0.001	<0.001	0.001	0.001	0.001	0.001	0.002	<0.001	<0.001	<0.001	<0.001	0.001	
Mercury	mg/l	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
Argentum	mg/l	<0.001	<0.0002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Zinc	mg/l	0.017	<0.001	0.015	0.007	0.055	0.008	0.006	0.015	0.006	0.006	0.009	0.007	0.013	
Total ferrous	mg/l	0.011	0.012	0.027	0.01	0.023	<0.005	<0.005	0.035	<0.005	<0.005	0.006	0.008	<0.005	
Soluble oxygen	mg/l													15.44	13.87

Indexes of industrial waste water contamination

Quantity of industrial waste water discharged into the public sewerage: 97,505.00 m^3

Index	pH	COD_{Cr}	BOD_5	Soluble Substances	N total	P total
Unit		mg/l	mg/l	mg/l	mg/l	mg/l
Public sewerage limit	6-9	800	400	2,500	70	10
Concentration of	8.55	487.88	167.61	1,364.53	24.90	1.80

* *Indexes are set by qualified spot sample*

Air protection

KIA Motors Slovakia, s.r.o. is operating following air pollution sources dividing based on public notice No.356/2010 Coll.:

Large air pollution source	Middle air pollution sources
Paint Shop	Press Shop
Vehicle process center (VPC)	Body Shop
Tank Farm	Assembly Shop
	Engine Shop
	Canteen
	Main office
	Section 6(Utility buildings)
	Fuel Station

During the trial operation there was realized the first authorized emission measurement on the air pollution sources that has obligation of emission measurement based on legislation. The results confirmed the observance of emission limits by all measured air pollution sources.

On July 1, 2010 there was carried out the authorized measurement of emissions to verify compliance with the set emission limits on exhaust V9, CO2 arc welding working place in object SO 200 Body Shop based on the permit for middle air pollution source enlargement. The measurement confirmed that the emission limits were complied with.

Exhaust	Pollutant	Emission limit [mg.m^{-3}]	Comparing value [mg.m^{-3}]	Result
V9	dust	150	1	ACCORDANCE
	Cd	0.1	< MS (0.01)	
	Cu+Cr+Zn	1	0.0	

Requirements on compliance with emission limit: Article 5(5) of Regulation of MoEnv SR No. 338/2009 Coll.
Emission limit and comparison values stated at: weight concentration in mg.m^{-3} under standard conditions (p=101.325 kPa, t=0°C), dry gas (dust).
Emission limit value:
Dust – point 1.1 letter a) part I. to Annex 3 to Regulation of MoEnv SR No. 338/2009 Coll.
Cd - part I. to Annex 3 to Regulation of MoEnv SR No. 338/2009 Coll.
Cr+Cu+Zn - part I. to Annex 3 to Regulation of MoEnv SR No. 338/2009 Coll.

From 30th June to 1st July there was carried out the authorized periodical measurement of emissions (after three years) to verify compliance with the set emission limits on exhausts in objects SO 300 Paint Shop and SO 400 Assembly Shop. The measurement confirmed that the emission limits were complied with.

Exhaust	Pollutant	Emission limit [$mg.m^{-3}$]	Comparing value [$mg.m^{-3}$]	Result
SO 300 Paint Shop [1)]				
V 04-04	total organic complounds	150	89	ACCORDANCE
V 43-23	CO	100	96	ACCORDANCE
	NOx	200	162	
V 05-58	dust	3	< MS (0.9)	ACCORDANCE
V 07-69	dust	3	1	ACCORDANCE
V 14-57, V 05-58, V 06-59, V 08-62, V 10-63, V 15-64, V 07-69, V 09-70, V 13-71, V 11-72, V 47-116	volatile organic compounds	45 $g.m^{-2}$	21.6 g.m-2	ACCORDANCE
SO 400 Assembly Shop [2)]				
V1	TOC	50	< DL (2.6)	ACCORDANCE

[1] *Requirements on compliance with emission limit: points B1.2.1 and B1.2.2 of IPPC decision No. 5742-24410/2009/Mar/770700104/Z4-Sk.*
Emission limit and comparison values stated at: weight concentration in mg.m^{-3} under standard conditions (p=101.325 kPa, t=0°C), moist gas and dry gas with the recalculation for reference oxygen based on the notes for table No. 4 of IPPC decision No. 5742-24410/2009/Mar/770700104/Z4-Sk.
Emission limits value according to table No. 4 of IPPC decision No. 5742-24410/2009/Mar/770700104/Z4-Sk.

[2] *Requirements on compliance with emission limit: Article 5(6) of Regulation of MoEnv SR No. 409/2003 Coll.*
Emission limit and comparison values stated at: weight concentration in mg.m^{-3} under standard conditions (p=101.325 kPa, t=0°C), moist gas.
Emission limit value according to Annex 2, point 5. to Regulation of MoEnv SR No. 409/2003 Coll as amended in Regulation No. 457/2007 Coll. .

Waste management

KIA Motors Slovakia s.r.o. is generating hazardous and other wastes by car production. Their amount and disposal method in the 3th quarter 2010 is described in following table.

Wastes	Amount in t	Utilization in %	Disposal in %
Hazardous	863.22	4.00 %	96.00 %
Others	10,636.92	99.00 %	1.00 %
Total	**11,500.14**	**92.00 %**	**8.00 %**